

Beaglehole—Ethnology of Pukapuka

15

557 513 Young children sleep whenever they are tired. Children from about 6 years of age onward average about 8 hours of sleep each night. Fires are occasionally kept burning late into the night when mosquitoes are troublesome.

519 Men micturate in a standing position; women squat on the heels or stand with knees bent. Both sexes defecate in a position squatting on both heels.

512 Cutting habits vary according to the instrument employed. In general, a knife is moved away from the body, a native cutting or scraping instrument toward the body. Adzing is, of course, toward the body.

483 Heavy weights, such as canoes, are lifted from the ground with the arms in front of the body and carried just clear of the ground. A house roof is carried on the shoulders of a number of men who get inside the roof while it is on the ground and hoist it onto their shoulders. A few coconuts are

482 carried in the hands, with or without a basket; a large number are balanced on the shoulder. Many coconuts are carried on a rough carrying pole, weighted at both ends and balanced at its middle point on the shoulder. The right shoulder is generally preferred. Women generally carry weights balanced on the head, using a pad made of a bunch of leaves placed between the head and the burden.

481 Climbing coconut trees and coconut husking are described on page 86.

515 Swimming is naturally acquired behavior and is not taught to children. Pukapukans are not great swimmers or divers, but use the sea mostly for bathing, when they run or wade from the beach and then suddenly duck. Children 526 are in the water a great deal; they play at water splashing, surface diving, and underwater swimming games. Adults rarely play swimming games. In 524 diving for *Tridacna* shellfish, adults dive from the surface by elevating the buttocks and depressing the head.

516 Casual observation indicates that left-handedness (*lima moyai*) is common in both children and adults. This was observed in adults in the use of implements and in the handling of darts in games, in children when dancing.

The toes are used extensively for picking up objects from the ground and for holding objects when both hands are engaged and when purchase is required.

581 Both men and women pole and paddle canoes today. The individual poles a canoe sitting, standing on the floor of the canoe, or standing with one foot on each gunwale. Paddling is done on either side of the canoe with equal ease. The paddle is grasped with both hands, fingers pointing to the front, thumb to the rear. It is unusual for a canoe crew to sing or chant in rhythm to the paddling. The paddle is plunged vertically into the water and the stroke is fore and aft. Two types of strokes are used: *ale ara pole* is a long, even, powerful stroke with the full stretch and strength of arms and shoulders, dipping the paddle blade deep into the water, and used for long distances when consistent power is required; *ale tuianga* is a short, quick, shallow stroke,

[41]

1:Beaglehole and Beaglehole E-5 (1934-5)1938 Pukapukans

Bernice P. Bishop Museum—Bulletin 150

not illegally fishing and that they were not stealing from the reserves. Incidents of this period are told in the stories of Tuiva and Kipela, and in the story of the *tuai pa* (pp. 387, 395).

Numerous references in the stories and traditions of the island show that stealing from the reserves was an ever-present problem that challenged both supernatural and secular supervision of these reserved areas. The only major sin in Pukapukan society seems to have been stealing from the reserves; beside this, all other types of antisocial conduct become mere peccadilloes. Where the law breaker meekly accepted punishment, secular or supernatural, all was well, but a thief surprised by a guard and resisting arrest either in shame or in desperation might be killed outright in the succeeding brawl. Several ancient graves on Motu Ko are still pointed out as the graves of thieves who were surprised on the reserve and killed.

TALO BEDS

The center of the reserve of Uta is a communal talo bed controlled by the village of Lotu (pl.1,B). This large area is subdivided into 11 smaller areas (*ai lulu*), named after nine land divisions in the reserve. There are four similar *ai lulu* in the reserve of Niua. The people of Ngake have more than 15 large talo cultivations on Motu Ko.

Tradition states that the main talo beds on Wake were formed originally by Tumu-livaka, son of the god Matafiki. Tumulivaka became troubled in his heart at the number of gods who were taking up residence on Pukapuka. He wished to be separated from the gods, so he stood at Te Anua, the northern point of Wake, and stuck his foot in the sand. This made a big separation or channel in the land from Te Anua to the pond, Te Vaituu, in Ngake village, and thence to the sea. As this follows the line of the present talo beds, it is common to refer to these beds as Te Akanga-vao (Striking-of-the-foot). Matafiki with his wife and the gods lived on the western side of the division, *te vao* means, so called because it faced the setting sun, while Tumulivaka and his sister, Te Matafika, lived on the eastern side, *te vao* means. As the island became more populated, this natural excavation, widened and deepened in places, was used for talo beds.

It is probable that the first migrants to the atoll found natural hollows in the land, caused by wave action when the atoll was being built up above sea level, and used these hollows as the basis for the talo beds. Successive generations continued the work of excavation, no light task with coconut shells, coconut baskets, and digging sticks as the only implements. Sub-surface water seeped in and rain water helped to rot the artificial fill of dried coconut midribs, *ketous* ferns, and other plant material into a humus soil, which became in time excellent soil for talo cultivation. The results of the excavations are seen in the raised embankments (*tae motu* or *tae ai*) which follow the line of the talo beds and divide one bed from the next. That natural hollows were first used as beds is indicated by hillocks about 40 feet high running beside some beds. It is impossible to imagine that

244 these hillocks were raised as the result of human excavations with such
712 primitive implements.

244 Traditions state that the talo beds on Motu Ko were started by the
773 migrants from the legendary land, Yayake, and were continued later by
425 the Pukapukans after the people of Yayake were all killed. Both on Wale
425 and on Motu Ko, excavations continue to this day. The beds that a man
177 digs out are his own property during his life; on his death they are passed
425 on down the paternal descent line. Picks and shovels borrowed from the
177 resident agent help to render excavation today less laborious than it must
425 have been in earlier times.

177 The village-controlled talo beds (*mota*) are separated into three divisions,
423 one each for the men, women, and children of the village. Each year the
621 number on the village rolls is altered through birth, death, the addition of
244 those attaining sociological adulthood, and affiliation (*tau*) of new members;
and a redistribution is made of the beds of the members of each class on the
village roll. The shares of dead adults are taken by new adults (*makatons*
and *makamauins*), whose shares in turn are given to new-born children. This
redistribution (*hotikotings*) is made by a village meeting at the talo beds. All
attend, even children, as a matter of course. The argument, discussion, and
[522] division are carried out by the guard and elders of the village; sitting on a
near-by hillock, the others watch and assist with free advice and criticisms.

The new boundaries are marked by stones and coconut midrib butts.
These soon fall down, but not before the new divisions have been memorized.
The actual size of the village allotments varies somewhat from year to year,
244 but in general a piece of land about 3 yards square is the average size of
625 the division for man, woman, or child. Twice a year all the village women
689 gather leaves and plants to fertilize the beds. Each adult cultivates his
and his children's land how and when he pleases. The guards inspect the
reserve land beds each month and fine each cultivator who has allowed his
land to get weedy. The appropriate fine of three pennies or six mature
coconuts is kept by the guards for their trouble in levying and collecting it.

244 The system is flexible and seems to work well. Each household receives
423 an amount of talo land commensurate with its size. The system insures
471 that none shall starve while others hoard up lands they cannot cultivate.
692 Supervision by the guards keeps the land in good condition. The talo beds
511 that a household derives from these village lands are supplemented by lands
owned through lineage descent.

PATERNAL LINEAGE PROPERTY

423 Lands within village boundaries not controlled by the village unit are
613 controlled by the paternal and maternal descent groups. On Wale, each
paternal lineage (*tu*) controls a section of land (*hauu*) of indeterminate

342 on the owner's generosity, but no man who expects to call on friends can afford to be stingy in his food division. The amount of food in each share is slightly increased for the more laborious types of roof thatching.
 476
 431 The same method of contracting is used today in building the slat walls for a modern house. The space between the uprights is divided into sections (here called *malava*), and one food share is set aside for those who complete a section (*puipui na malava*). The food division at which the shares are handed out to the workers is termed *apuakaga*. That this division may be made immediately the work is completed, the more farsighted arrange for it ahead of time by placing a tapu on their talo and nuts, and by fattening pigs. Others, not so far-seeing, wait until the work is completed before beginning to gather food, and the workers may have to wait patiently for some time before the payment is made. Informants seemed to think that a two-year wait would be the limit. If the owner showed no signs by this time of preparing his food division, it would be legitimate for the workers to make pointed comments about his stinginess. In any case, no man who was at all proud of his reputation in the community could afford to wait as long as two years.

342 There is no specialization in Pukapukan house building, and not the slightest suggestion of any guild organization. It is for this reason, perhaps, that an average-sized dwelling house takes from seven months to a year to build. The actual labor involved is not great, but the owners must frequently put aside work on the new house in order to engage in other activities. Delay is also caused by the necessity of laying in reserve food supplies to pay the workers in the next stage of construction. It is possible that the time taken to build a house today with iron tools (as also a canoe), is conditioned by the carry-over of temporal patterns from an earlier time when work was done with shell adzes and must of necessity have proceeded slowly. Also a work in hand gives a man a feeling that his time is valuable, and increases his importance in the community as one who has undertaken a work of magnitude and who is theoretically busy at this work when others may be idle.

342 There is no record in Pukapuka of any rites, tapus, chanties, prayers to the gods, or other ceremonies connected with house building. The completion of a new god house was marked by a feast, but there was no consecration of the house before it was used.

CANOE BUILDING

322 There is no name for the expert canoe builder other than the general descriptive terms, *taupala mauata* or *taupala tau mauata*, applied to any expert craftsman. Expertness in canoe building is associated with families of canoe builders by whom most of the canoes on the island are made.

1:Beaglehole and Beaglehole E-5 (1934-5)1938 Pukapukans

88

Bernice P. Bishop Museum—Bulletin 150

244 two beds well demarcated. When the talo grows, however, the two varieties
423 are often so intermixed that the boundary is unclear. A single talo bed may
— be planted with one variety or with several varieties planted in sections
running crosswise over the bed.

244 Any and all of the varieties are used indifferently in preparing the talo
262 dishes. All are considered equally fertile. The only reason for planting
— one variety rather than another is to get the benefit of the slight differences
in taste and flavor between varieties.

244 Native terminology for talo and pulaka is:

192 Pulaka: the whole plant.
— Talo: the whole plant.
Wawa: old name of the talo stem; wawa is used interchangeably today with talo for
both plant and corn.
Kau a pulaka, kau a talo: the petiole.
Thagapala: the cutting, top section sliced off the mature corn with petioles and leaves.
Lau talo: talo leaf.
Lau pulaka: pulaka leaf.
Lito: delicate young leaves protruding from the base of the innermost talo leaf.
Piangiko: the lateral cornlet or sucker produced at the side of the corn and bearing a
crown of leaves.
Ala: root.
Wulowulu: rootlets of the corn.
Palapala: swampy mud in which the plants are grown.
Ui talo, ui pulaka: bed or garden.
Waa: talo bed of a single man, woman, or child in communally owned talo land.

There is no elaborate garden magic in the planting and cultivation of
talo. New moon planting was favored to produce plenty of talo with large
and good-flavored corms. Full moon planting was also good, but after a
few replantings the corms tended to grow smaller. Formerly a bed was
stripped (mawel) and replanted at the new moon, but a few tubers were
removed (maweyu) from a field at any time.

The complete process of going to the garden, harvesting, planting, and
bringing home talo is termed *tope wawa*.

244 When a woman or girl goes to the talo bed, she takes with her a coconut-leaf
282 basket (*kie kama*); formerly also, a turtle-bone cutting implement (*talo*). She re-
212 cognizes the mature (*kie*) corn by thuyellowing and curling up of the leaves. She
— pulls out (*lepe*) the talo plant and slices off (*tope*) the top section, tossing the corn
to the embankment of the bed. She loosens the soil from which the plant was pulled,
digging it up (*tohi*) with a stick (*boye ui*). She slices most of the leaves from the
petiole, usually leaving one leaf, and sets the cutting back in the ground. She tramps
the soil around the slip to make it firm, planting in rows, not in hills. She throws
the leaves stripped from the petioles back on the ground and tramps them into the soil.
She repeats the process until she has sufficient tubers. When a whole bed is being
stripped by two workers, one pulls the corn and throws it to the side; the other cuts
the top section from the corn and throws it back to the harvester, who replants it. In
former days after harvesting sufficient talo, the workers sat aside from 4 to 10 corms
for the gods of the garden, saying, "Mawelau e, Mawelau e, here is your share of
talo to help increase the yield of my garden." Then the cuttings from these corms were

252 and kept on rough platforms made by laying longitudinal members across
573 the tiebeams of the house. Plaited pandanus satchels (*tuluma*, p. 134) for
415 valued fishhooks and larger satchels of the same type for malos and other
items of dress were also kept on the tiebeam platforms.

Plaited pandanus pillows (*ulunga laukawa*, p. 134) and wooden headrests
(*ulunga lahu*; fig. 12, d) were in occasional use. Most people, however, did
not go to the trouble of making a special pillow but used for this purpose
any suitable block of wood. Soft driftwood was favorite material, a piece
of cork of suitable size and thickness being most prized. Today, the usual
177 headrest is a block of wood inserted into a European pillowcase and packed
354 tight with a thin layer of kapok. This pillow combines a desired hardness
with the prestige value of using a European object.

352 Wooden back rests (*tebo*; fig. 12, c) were occasionally made in former
576 times. Made of *wakawaka* wood, they were used for resting in a reclining
position inside or outside the house.

Insect swatches (*nawa*) are in great demand when mosquitoes (*nawu*)
become vicious:

357 These swatches are quickly made by superimposing three sections from the tip end
215 of coconut leaf midribs, each section carrying 30 to 50 leaflets. These are bound
412 together by several transverse turns of fiber from the coconut leaf midrib or by passing
two leaflets from the bottom midrib around the several midribs in opposite directions
and tying the ends together with overhead knots. The swatch is discarded when the
leaflets become dry.

Brooms (*walewale*) made from leaflet midribs are in common use to
sweep up rubbish from the floor of dwelling or cook houses.

A short broom (*walewale tauke*, Ch193) is made of midribs (*lao*) stripped from
coconut leaflets and dried in the sun. These are caught about 1 inch from the proximal
end in a three-ply braid of pandanus material (*lito*) about $\frac{1}{4}$ inch wide. The projecting
midrib ends are bent over and braided with one of the *lito* plies as a single ply. The
braiding is continued for about 25 inches; for this length, about 170 midribs are required.
When all the midribs have been added, the braiding is continued for about 6 inches and
fastened with an overhead knot (*wakawaka*). Starting with the commencement end,
the braiding is rolled (*tapetupe*) on itself to form a convenient handle of midribs. The
free end of the braid is wound around the butt ends (*wakawaka*) of the midribs and
fastened with an overhead knot. The distal ends of the midribs are trimmed off to
make brooms about 2 feet long.

A large broom (*walewale waka*) for sweeping the ground outside the houses is made
from hard coconut midribs that have dried on the leaflets. The midribs are gathered
together in the hand and spaced evenly around the end of a long handle, generally a
length of *upaka* wood about 4 feet long. The butt ends of the midribs are fastened
to the handle with transverse turns of small, commencement and finishing ends being
buried underneath the turns.

354 Lighting inside the dwelling house is usually provided by burning a few
372 dry coconut shells on the floor. Today *lawa* lanterns are fairly common,

354 especially for evening prayers and for all-night vigils over a corpse. Out-
 372 of-doors light, on dark nights of the moon, is provided by small coconut-
 shell fires. When dry shells are plentiful a number of half shells are strung
 together on a strip of pandanus material (*lito*) about 2 to 3 feet long by
 passing one end of the pandanus strip through the soft eyehole of the half
 shell. Two parallel rows of these shells are placed on the ground and a
 few dry shells rested on top of the two rows. The shells are lit at the
 windward end with a *taume* torch and burn with a fierce flame. Such a
 firelight torch of dry coconut shells is termed *loma ngapu*.

352
 412
 322
 284

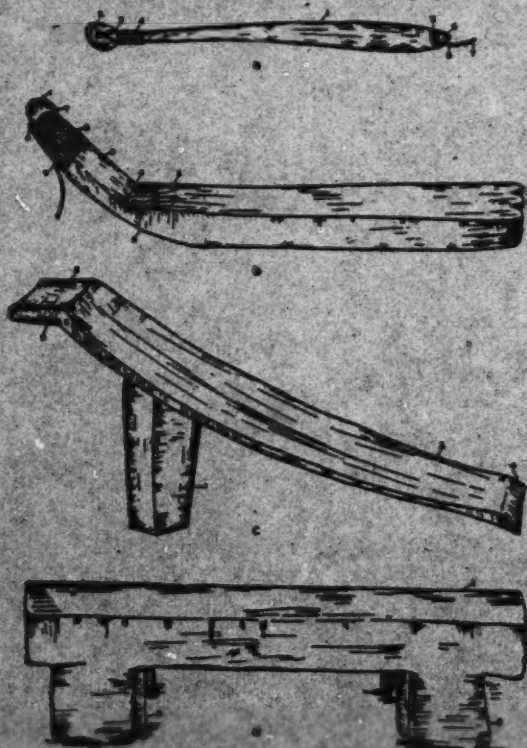


FIGURE 12.—Household implements. a, *serapu* (unley) (C&S) for removing
 shell in making coconut water container; handle of *apoupe* wood (s) 13½ inches long,
 1 inch thick at proximal end, and ¾ inch thick at distal end; under surface of handle
 slightly concave longitudinally; distal end of handle inserted into carefully chipped hole

32
412
322
284

in scraping shell (*valuyi*, *Merita polita*) a little to left of apical whorl; four lashing turns of fine three-ply sennit braid (3) pass from handle through shell (2) where commencement end is buried, lashing continues with 16 transverse turns around distal end of handle (4); finishing of lashing buried beneath last turns; at proximal end a thin cord (7) of twisted *arec* fiber is attached so that the scraper may be hung up; two notches (5, 6) cut in handle; the two plies of *arec* cord lapped about notch (5) and fastened with figure-of-eight turns of fine, two-ply twisted sennit which pass around handle and between two notches; free end of sennit seized (8) around *arec* cord and finishing end buried. *b*, coconut stand grater (*tuai*) (C8106): clam-shell grater (1) mounted on wooden stand (2) cut from solid block of *arec* wood; horizontal base 1 foot 10 1/4 inches long, 4 1/4 inches wide at proximal end, and 2 inches thick; two triangular notches cut into proximal end said to be old form of ornament; oblique arm (3) 7 inches long, 3 inches wide, and 2 inches thick; angle (4) at which arm leaves horizontal base obtuse, under side (5) shaped and rounded off slightly; distal end of oblique arm (6) slotted for depth of 2 inches and concave so that convex outer surface of shell grater fits securely against arm; a piece of cork (7) fitted against inner concave surface of shell grater; lashing of three-ply braided sennit (8) applied over cork and around arm; lashing consists of 24 turns with buried commencement, and under normal conditions finishing end would also be buried, but in this grater free end is not cut off flush with transverse turns but is knotted and left free (9) so that grater may be hung up by free end. *c*, back rest (*lake*) cut from solid block of *makousa* wood (C8161): 1, four-sided stand 8 3/4 inches high at back and 5 3/4 inches high at front, sides about 3 1/2 inches wide; 2, main backrest, surface of which has slight transverse and longitudinal concavity, 2 feet 3 1/2 inches long, 9 1/2 inches wide, and 3/4 inch thick at edges; continued by horizontal extension rest (3) 4 inches long, 3/4 inch thick at sides; 4, end resting on ground has bevel 1 1/2 inches wide; 5, under surfaces of horizontal extension (3) shaped obliquely, coming together in short mesial longitudinal ridge 1 3/4 inches high. *d*, wooden headrest (*ulungu lakeu*) (C8184): roughly cut from single block of *pupes* wood: 1, pillow section 1 foot 7 inches long, 5 inches wide, and 2 1/4 inches thick; 2, four legs, each 2 1/4 inches high, 3/4 inches wide, and 2 inches thick; 3, slight flare at base of right front leg due to unskilled workmanship and not to design.

- 352 Furnishings of Pukapukan houses today include little that is modern.
573 Occasionally one sees a European chair. Most houses have wooden chests
404 or *sukasas* in which clothes are kept. European mosquito nets are in com-
mon use, and several houses proudly display antique sewing machines.
177 Beyond these few articles and bundles of mats, the house interiors are
generally quite bare.

FOOD UTENSILS

- 245 To harvest and husk coconuts, the climbing handaxe (p. 146), husking
412 stick, and carrying pole are used. The husking stick (*keyo*, C8049) of *ngangis*
482 wood is driven into the ground for two thirds of its length. Informants
were sure that the short stick was the only type used formerly, the worker
kneeling or squatting on the ground to husk. Today, a much longer stick
is generally used, the husker standing and bending over the stick. The
carrying pole (*ame*) is a convenient length of coconut leaf midrib on which
a sick is made at each end. Pairs of nets are slung over the pole, the

1:Beaglehole and Beaglehole E-5 (1934-5)1938 Pukapukans

124

Bernice P. Bishop Museum—Bulletin 150

245
482
—
258
412
—
fiber joining end pairs resting in these nicks. The carrying pole is discarded when the worker returns to the village. Shaped, permanent carrying poles are never used.

A spatula-shaped implement (*halokalo taumaya*, C8038) of *ngangis* wood is used to scrape out the soft flesh of the drinking nut. One end has a sharp point used for opening the nut by piercing the soft eye. The other end is broad and is used for scraping out the flesh after the liquid has been drunk. The implement is a combination of scraper and spoon.

A hand grater (*halokalo si mata*, C8091) is used for grating the flesh of the coconut to make the coconut food called *niv halokalo*. The blade is the *uyoloto* section of a pearl shell. The nacreous inner surface of the shell forms the front surface (*aloalo*) of the blade, the black outer surface forms the back (*tua*) of the blade. The teeth of the serrated edge of the blade are termed *mata*. The blade is fixed to the handle of *ngangis* wood by 17 transverse turns of three-ply sennit, with buried commencement and finishing ends.

A stand grater (*tua*) is used to grate the flesh of the mature coconut to make coconut cream. No shell graters (fig.12,b) are in use on the atoll today, but the stand-grater principle is retained in the use of a toothed metal grater attached to a wooden arm which is fastened to a box. To use the shell grater, the worker sat on the horizontal base. Holding the half coconut with both hands, she worked the flesh against the grater teeth with a downward rotary movement. The gratings fell onto a coconut mat on which the grater rested.

415
A coconut cream wringer (*tauvanga*) is made from the husks of the coconut at the *niv mata* stage after burial in beach sand to macerate the inter-fibrous material. The husks are beaten with a stick to remove the decayed parts, washed in water, and are ready for use when dry.

Food packages for transporting talo pudding or fish are made by placing the food on the platter called *taulau ova loloi* and then folding back the two tails (*uakapona*) of its finishing edge over the food; the tails are pushed through the plating just below the midrib commencement edge, their free ends tied in a reef knot to make a compact package.

415
363
Water containers (*wowongi*; fig.13,a) are made from especially large coconut shells. The husk is removed and the shell opened at the soft eye. The liquid is poured off and the shell filled with salt water. When the flesh has rotted, it is removed through the soft hole with a special scraper called *ruwai* or *uoi wowongi* (fig.12,e). A handle of sennit is tied to the netting on either side and the containers hung in pairs (*wowu*) to the rafters of the cook house. No containers were seen in use, their place being taken by buckets or empty cans.

244 Various implements are used in the harvesting and preparation of talo. The worker in the talo gardens formerly sliced the petioles from the corms with a cutting implement (*taka*, C8096, C8097) made from the backbone of the turtle. This knife was also in general use as a cutting implement as was a knife (*pala*, C8145) made of the jawbone and attached teeth of the pale fish (*kawase pala*). No spade was used for replanting talo; if the ground was hard it was first loosened with a short, straight digging stick (*keyo*).

252 Talo is prepared for cooking by scraping the dirt from the corm. A scraping peg (*tubitaki tete wawa*, C8083) is made from a section of coconut midrib (*palelawa*) about 17 inches long. The proximal end of the peg is resined on the ground and the distal end placed against a half coconut shell or piece of wood of suitable height 6 inches from the distal point. The worker holds the proximal end of the peg tight by resting her left knee on it. She holds the corm with the left hand at the distal point of the peg and scrapes (*tete*) the corm downward and toward the body with a scraper (*kai*). The *kai* (C8084) is the bottom portion of a small, discarded dry coconut shell. Part of the outer edge circumference is cut away to form a short cutting edge.

After the scraping, the talo may be sliced (*talo*) into sections with the *kai* scraper, cooked whole, or grated on a stone grater (*watu ola wawa*). A typical grater (C8053) is a block of coral (*punga talatala*) with a rough surface. The block weighs 8 pounds, is 15½ inches long, averages 6½ inches wide, and is 3 inches thick. The worker sits before the stone and rubs the corms under pressure up and down the surface of the stone.

An oven spreader used for spreading (*tolu*) the hot stones of the oven is a section of the butt end of a coconut midrib (*palelawa*). Oven tongs (*pingoi* or *mangoi*, C8191) are made of a piece of coconut midrib, 18 inches or more long. The leaflets are trimmed from the side edges and the midrib doubled so that the outer fibers snap while the inner ones remain to form a sort of hinge. The tongs are green when first made but dry quickly and become brown. Tongs are in constant use for shifting the hot stones of the native oven.

252 Cooked talo is pounded and mixed with coconut cream in a wooden bowl (*kumeto*). A small bowl is shown in figure 13a. A common type 412 pounder (*tubi*) of *agapic* wood is shown in figure 13b. Pounders in use 415 become polished with oil. Those seen in use ranged from 1 foot 5 inches to 1 foot 7 inches long, with 3¼ inches diameter of pounding base. A cone-shaped proximal end is common, but a few pounders have a terminal knob. A larger wooden stirrer (*yau*) also of *agapic*, is shown in figure 13c. Other bowls in use were examined in the field. They may be briefly described to

$$\begin{array}{r} 322 \\ 552 \\ \hline 412 \\ 415 \end{array}$$

show variations on the type elliptical bowl. All bowls were carved from a solid block of wood. Large bowls used to prepare the talo foods for feasts are named after their makers.

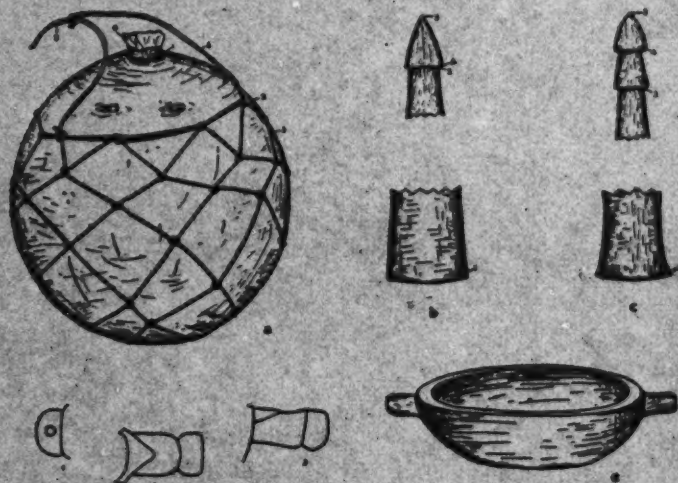


FIGURE 13.—Household equipment. a, coconut water container (sawowot) (Ologa): soft eye (1) of large coconut (2) opened and enlarged; net (3) of two-ply twisted semit cord encloses shell; handle (4) made by knotting three-ply braided cord to top of setting on either side and knotting another cord (5) to first one; 6, cork (momonono) a strip of dry pandanus leaf rolled into cone shape and stuffed with more pandanus leaves. b, talo pounder (tuli) of nganga wood (Ologa): weight 4 pounds, length 1 foot 10 inches, diameter of base (1) $3\frac{1}{4}$ inches, diameter of neck (2) $1\frac{1}{4}$ inches; distance from point of proximal end (3) to neck, $2\frac{1}{4}$ inches; diameter of base (4) of cone-shaped proximal end $1\frac{1}{2}$ inches; pounding base (1) flares slightly and is slightly convex; surface of pounder smooth. c, talo mixer (we) of nganga wood (Ologa): weight $3\frac{1}{4}$ pounds, length 2 feet 4 inches, diameter of base (1) 3 inches, diameter of neck (2) 1 inch; length of first cone of proximal end from point (3) to base (4), $1\frac{1}{4}$ inches; length from base of first cone (4) to base (5) of second truncated cone $1\frac{1}{2}$ inches; distal end of mixer flares out and pounding surface is slightly convex. d, variant lugs of wooden bowls: 1, top view of left lug, 2 inches broad, 1 inch wide, and $1\frac{1}{4}$ inches deep at bowl rim; hole, $\frac{1}{4}$ inch in diameter, runs through lug, by which bowl is suspended; 2, 3, top and side views of right lug of same bowl; lug, $1\frac{1}{4}$ inches wide and $1\frac{1}{2}$ inches thick, carved in conventional phallic symbol 3 inches long. e, small food bowl (kumete) of papea wood (Ologa): greatest diameter $1\frac{1}{4}$ inches, least diameter $\frac{1}{2}$ inches; thickness of sides at rim ranges from $\frac{1}{4}$ inch to 1 inch; depth of bowl 4 $\frac{1}{2}$ inches; lugs plain, 2 inches long and 1 inch in diameter; bottom flat.

[831]

1: Beaglehole and Beaglehole E-5 (1934-5) 1938 Pukapukans

Beaglehole—Ethnology of Pukapuka

127

<u>415</u> <u>831</u> <u>412</u>	Bowl NAME	LOWEST DIAMETER	SHORTEST DIAMETER	DEPTH	REMARKS
—(i)		20"	15 1/2"	7"	No lugs.
—(a)		17"	11"	4"	Right lug plain, bored with hole to facilitate hanging. Left lug conventional phallic symbol. (See fig. 13.4).
Pilao		6' 7"	2'	12 3/4"	Each lug 9" long and carved into realistic phallus. Bowl holds 1000 talo coconuts. Two food mixers accompanying this bowl are of ngangie wood, each 23 1/4" long and 2 1/2" diameter at pounding base.
Palamiam		4' 2"	1' 9"	15"	Lugs plain, 11 1/2" long and 3" diameter in cross section. Bottom shaped like a turtle back (tun woun) and propped with stones when in use. Holds 400 coconuts.
Ela		6' 4"	1' 5"	10 3/4"	Lugs plain, 11" long, 4" by 2" in cross section. Turtle-backed. Holds 1000 coconuts.

252
415 Large coconut shells in which to cook talo are set aside whenever they are available. The cook always tells a person about to open a large coconut to crack it with care and put aside the shell when he has drunk the liquid and scooped out the flesh. Shells are thrown away after being used once as cooking utensils.

PLAITING

285 Plaited articles of coconut leaf or pandanus material are still in common use in Pukapuka. Among these articles are plaited roof sheets and wall screens, floor and sleeping mats, and articles used for transporting, storing, and serving foods. Formerly plaited articles were used also for everyday and ceremonial dress.

In the following brief description of Pukapukan plaited articles, the terminology used is that established by Buck (27, pp. 164-168).

PANDANUS MATERIAL

285
314 Pandanus trees are not cultivated to provide material for mat making. Plaiting material prepared from the leaves (lex) of the male variety is termed *lito*, and from the yula variety, *launula*.

The method of preparing *lito* material is as follows:

314
372 A woman collects green pandanus leaves from trees in the reserves and brings them back to the village. While the fire she has made of dry coconut midribs and buns is burning, she takes each leaf and strips off (today with a knife, formerly with a sharp

283
290

divided into two bundles with the tips of the leaflets lying in the same direction. The butt ends of the two bundles are laid together and roughly fastened with a leaflet. Commencing about 4 inches from the proximal ends of the butt leaf bundles, leaflet 1 from the left bundle is passed to the right, leaflet 1 from the right bundle is passed to the left over leaflet 1 of the left bundle. This process is continued until all the leaflets have been crossed over. The leaflets are then plaited in closed leaf check and the finishing edge made with the *ikiings* technique. The two bundles containing the butt ends of the leaves are bound together with transverse turns of sennit, the completed lashing having buried commencement and finishing ends (pl. 3, 42). The technique is the same as that of the midrib-handle fan shown in figure 17 save that the handle is composed of the butt ends of the leaflets bound together.

Fan C8189 (*ili yueye*) is a smaller fan made by the same technique. It commences with check plaiting, goes on to twilled twos, twilled threes, and finishes with rows of check. The fan is $13\frac{1}{4}$ inches long, 6 inches wide at the top, which is straight instead of curved as with the other two fans. The handle is bound with nine turns of common string.

CORDAGE

283

Various materials are used as cords. Readily obtainable materials that serve a need of the moment are coconut leaflets and strips of fiber from the coconut midrib or from dried *pulaka* stalks. These are used without preparation and discarded when no longer necessary. More permanent cordage is made from the husks of the coconut and from bark of the *tau* tree. *Wao*¹ fiber is used for fishlines where quality is more important than quantity; coconut fiber is used for every variety of cord where strength and quantity are desired. Human hair is occasionally used to make short cords by which valuable ornaments (*yano*) are hung from the neck.

[301]

Wao fiber is prepared for the finer fishlines as follows:

Bark is peeled (*wowole*) by a man from a small branch or sapling (*yali*) of the *wau* tree and rolled up into a bundle (*pokai*). A woman proceeds with the task. She puts the bark in a wooden bowl and covers it with fresh water. Then she places a strip of bark on a flat surface, a special board or the blade of a canoe paddle, with the inner surface of the bark lying downward on the board, and scrapes (*vais*) away the green outer bark with a shell until only the white inner bark is left. When all the strips of bark have been scraped, they are braided together at the ends by the man or woman to make a bundle of strips termed *titi wao*. This *titi* is hung in the sun for about two weeks to bleach. At the end of this time, each strip is rubbed with a half coconut shell until it is soft and pliable. Each strip is then shredded (*vayivayi*) into narrow widths (*yaks*) which are ready to be made into fishline.

283
412

Appliances used in *wao* bark preparation are:

Scraping board C8190 (*papa wau wao*) is a board of *pau* wood, 26 inches long, 4 inches wide, and $1\frac{1}{4}$ inches thick. The scraping surface has a slight transverse convexity.

Shell scraper C8191 (*kon*) is a highly polished and smoothed black-tipped pearl shell; greatest length $3\frac{1}{4}$ inches, greatest width $3\frac{1}{4}$ inches, thickness at the hinge $\frac{1}{16}$ inch, thickness at the tip $\frac{1}{16}$ inch.

283

Block of fiber C8192 (*titi wao*) is a semi-bleached block of prepared *wau* bark from which line may be made. Thirty-one strips of bark ranging in length from 3 feet to 6

¹ The *wao* is *wau*; fiber prepared from its bark, *wau*.

STONE IMPLEMENTS

324
412 Owing to the scarcity of hard stone, adzes were generally made of *Tridacna* shell; a few were made of imported stone (p. 164). Mallets (*tukituki*) of small, unshaped pieces of coral conglomerate were used to pound caulking material between the seams of the plank canoe. Stones were used for grating talo and for cutting pearl shell (p. 169).

RELIGIOUS ENCLOSURES

778
346 Religious enclosures (*awanga*) on which priests communicated with the gods were round or oval, the form demarcated by a circle of stones placed on edge. Two gaps (*pu*) were left in this circle as entrances to the worshiping place. In the center was the sacred stone (*unu*) of the god. The ground inside the circle was covered with fine white coral gravel.

Today, only traces of several of these religious structures survive. No complete stone representation of a god remains, but informants suggested that this was any large block of unshaped *puanga* coral (p. 319). A section of the stone that once represented the goddess Tausa, now functioning as a foundation stone for the old copra shed on Loto beach, bears out this information.

Several sites of old religious structures were visited at the place Unipoa on Wake where were formerly situated the enclosures of old Ngake village. Two of these sites were cleared.

778
172 At the religious structure of the god Te Alungasa there remain nine stones of undressed coral, each stone approximately 32 inches wide, 16 inches high, and 4 inches thick. The tops of the stones are about 3 inches above ground level. By continuing the outline traced by the stones, it appears that the religious structure was about 12 paces in diameter. Of the stones standing, one is on the eastern rim, three on the northern rim, five on the southwestern rim. A young coconut tree is now growing on the western rim of the structure. A circle of coconut trees is planted round the outside of the rim of this structure as well as round that of the god Tulikalo. I do not know whether this was formerly the case. To test the levels of the structure, a trench 4 feet deep was sunk across it. The first level was sand and leaf mould. Twelve inches below the surface was the fine gravel that formerly marked the ground level. Below this again was the characteristic sandy gravel of the atoll. Nothing of further interest was turned up by the excavation.

The former religious structure of the god Tulikalo was also cleared to reveal five stones of about the same size as those on the structure of Te Alungasa. The enclosure was about 10 paces in diameter.

The two contiguous structures of the gods Tumutiraka and Te Matukiate are so overgrown that it was impossible to clear them. Examination of the ground showed that no stones are left on the structure of Tumutiraka. One stone was left on that of Te Matukiate. This stone of undressed *puanga* coral is rectangular, 24 inches long, 8 inches above the ground, and 6 inches in diameter. Informants traced the outline of the structure. It apparently was oval with a diameter of about 15 paces one way, 13 paces the other.

172 sites. The only sites worth excavating on the atoll were old graves, but the
175 fear of ghosts is so intense that none would allow such excavation for fear of punishment—possible death—by outraged spirits of the dead.

That such excavation, however, might be extremely fruitful is shown by an involuntary excavation that occurred during our stay on the atoll. Yepina, assisted by relatives and friends, was digging the grave for his grandson in a Ngake cemetery. A near-by grave which contained the skeletons of two young girls buried before white contact was unintentionally struck. Talainga, who was assisting, asked one of the men present to go to Yato to call me to see the objects contained in the grave. But Yepina, being in a hurry and feeling that he had committed an act of desecration in so clumsily opening the grave, refused to allow the messenger to leave the place. All the men present concurred, saying they had no wish to be plagued to death by the spirits of the two girls. Before Yepina covered the grave, Talainga was able to make rough sketches of a few of the objects in it and to note down others that he saw.

172 Among the objects close to the skeletons were one large basaltic adz; several
264 *Tridacna*-shell adzes; many fishhooks including three pearl-shell hooks, two with barbs, the other a plain hook of the *lope* type; several shanks from composite pearl-shell bonito hooks, one with two projections on either side of the distal end of the shank; several pearl-shell points, evidently original parts of the same hooks; many pieces of pearl shell of different shapes which were probably at one time strung together to make the pearl-shell ornament called *masa tiki si*.

Talainga suggested when he told me of the incident that there were many more objects in the grave than he could note, so determined was Yepina to repair his error. General opinion was that the two girls must have been favorite children of a sorrowful father, who buried a wealth of objects with the two corpses to show the depth of his sorrows.

WORKING IN WOOD

322 Implements used by the Pukapukan craftsman for working in wood
include the *Tridacna*-shell adz, the drill, a shell awl, a whale tooth or coral rock mallet, shark or ray skin and coral scrapers.

ADZES

412 Adzes (*toki*) were made of *Tridacna* shell (*ngalipayua*), as shown by
177 Macgregor (20, fig. 13). They were attached directly to the haft (fig. 21). No rotary or movable adz was known.

Basaltic material from which adzes might be made was not available on the atoll. Legends of early canoe voyages relate that returning Pukapukan navigators brought back to the atoll stone from which adzes were made. At any time, the number of these on Pukapuka must have been small, and they gained in value both from their more durable quality as working implements
x [See 2: Macgregor, p. 46—analysis.]

412 and from their scarcity. The quadrangular basaltic adz figured by Mac-
 177 gregor (20,fig.14) was picked up on the outer beach of Wale. It is similar
 to Samoan type I adzes (27,p.334) and was perhaps imported from Samoa.
 A second basaltic adz was seen by Talainga in the old grave unintentionally
 opened. From Talainga's description and rough sketch this adz appears to
 be a triangular one, perhaps corresponding in shape to the Samoan type VII
 or VIII (27,p.351). It was 10 inches long, the back ground smooth, the
 front roughly chipped, and the poll rounded. The depth of the bevel was
 about 2 inches.

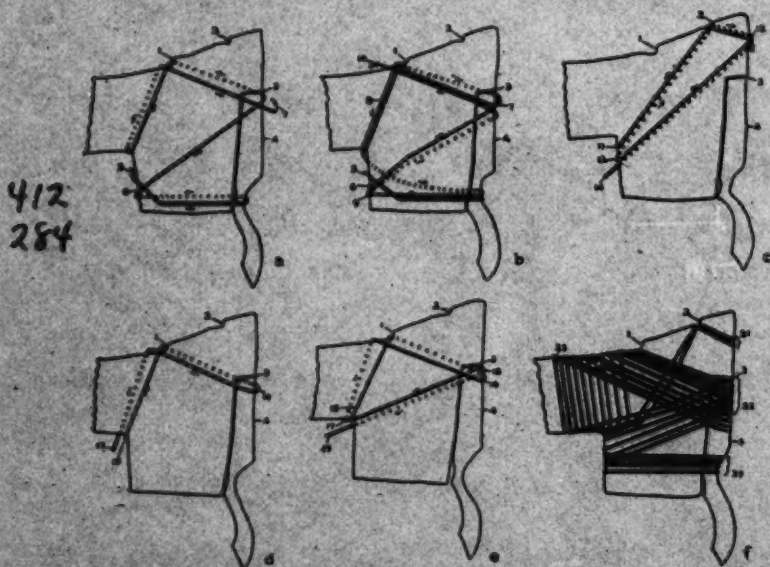


FIGURE 284—*Tridacna* shell adz (C6105) with haft of *Wekusa* wood; length of
 haft from toe angle to slightly flared butt, 19 inches; haft round in cross section,
 average diameter being $1\frac{1}{4}$ inches; at heel angle a prominent longitudinal ridge runs
 up to point of heel; above heel angle (see a) is cut a notch (1) to prevent lashing
 from slipping; $\frac{1}{4}$ inch below point of heel a second notch (2) is cut, also to prevent
 lashing from slipping; $1\frac{1}{4}$ inches below point of heel on foot of haft is cut $\frac{1}{2}$ inch
 deep shoulder (3), against which adz (4) fits to avert slipping when in use; because
 of irregular shape of poll of adz, shoulder is cut transversely on foot, so that distance
 from heel point on one side is $1\frac{1}{4}$ inches, other side $2\frac{1}{4}$ inches; lashing material three-
 ply sun-dried braided $\frac{1}{4}$ inch thick. a, lashing commencement; commencement end of sun-dried
 (5) laid under toe angle, free end passing transversely around rear side of toe and
 back across far side of toe and brought across toe angle to near side; grips commence

412
284

ment end, and passes at 6, on near side, diagonally up to shoulder (3) where it grips poll of adz, passes across far side of heel, and is brought to near side over notch 1, across to toe angle; it makes a turn under toe angle, passes to notch 1, on far side, and then across heel on near side, gripping first diagonal turn (7) of semit from toe to heel. b, continuation of lashing: free end (7) passes across shoulder (3) and across heel to notch 1, where it is brought across to near side and down (8) to near side toe angle; from toe angle it passes to far side of toe and makes a transverse turn around toe, coming back on near side and passing under toe angle (9) to make diagonal turn on far side up to shoulder; brought around shoulder to near side and passes across heel (10) to notch 1, where it passes down far side of heel to make further turns, as described, until four complete turns are made of which, for clearness, only two are shown in b. c, lashing of point of heel: fourth completed turn brings free end of semit into position at 11, to make two turns around point of heel; semit passes diagonally across near side of foot from toe angle to heel, crosses to far side of heel at notch 2, passes across heel and is brought to near side of heel (12) and diagonally down on near side to toe angle; semit crosses under toe again (13), runs diagonally up to heel on far side and is brought across notch 2, to near side of heel, then across heel and diagonally down on far side to toe angle (14); semit then ready to make two more turns, repeating diagonal movements between toe angle and heel; four diagonal turns in all, of which only two are shown in c. d, continuation of lashing: last turn of diagonal lashing brings semit into position (15) for further turns; semit passes on near side from toe angle to notch 1, where it lies on top of turns made as in b; semit crosses to far side of heel, then crosses heel to shoulder (3) and goes around to near side of heel and across heel to notch 1 where it passes to far side of heel and down to toe angle (17), forming lower loop (16) of this phase of lashing. e, semit (17) comes around under toe angle and goes diagonally across to heel; turn continued around heel to far side to make upper loop (18), then diagonally down on far side to toe angle; this brings semit (19) into position to repeat turns as in d and e; altogether six turns are made, lower loop alternating with upper loop, and free finishing end of semit brought up on near side of toe angle and buried underneath last two turns at heel angle. f, completed lashing: 20, first four turns made around toe, binding lower part of adz to toe of haft; 21, four diagonal turns around point of heel and notch 2; 22, final six turns, alternating lower with upper loop; 23, point where end is buried to complete lashing.

DRILL

321
322
413
171

The pump drill (uou) was formerly used to drill holes in wood and shell. It was of a common Polynesian design (fig.22).

To drill a small hole or to drill fragile articles, a light balance was required; for this purpose one half of a dry coconut shell was put on the shaft by pushing the shaft through the soft eye of the shell, the eye part of the shell pointing downward, the open half of the shell pointing upward. To drill a large hole in hard material, a heavy balance was used, the wooden balance on a drill being reinforced if necessary with extra weights of wood.

The point of the drill was of shell or iron. Informants were at pains to point out that the Pukapukans were aware of iron long before white contact. They procured nails from pieces of boat wreckage which from time immemorial have drifted onto the outer beaches. They turned the wreckage and combed over the debris for nails hammered into the wood.

[177]

To drill in stone. The worker started a hole by holding the shaft of the drill between the palms of the hands and rotating it. When he had made the slightest depression to hold the point, he worked the drill with the pump handle.

SCRAPERS AND RASPS

- 412 Scrapers for smoothing wood were formerly selected pieces of coral
 322 (*punga*) with rough surfaces (*talatata*). The smoothing (*oloalo*) was done
 177 with the wooden object submerged in sea water in order to soften the wood.
 The first scraping was with the *punga* coral, the finishing scraping with a
 piece of *haka* coral which has a surface covered with tiny, sharp "teeth".
 The use of wood scrapers to which shark or ray skin is lashed is modern
 in Pukapuka. Informants stated that although shark skin was used formerly
 for fashioning pearl-shell hooks, the idea of using it for smoothing wood
 was introduced from Samoa.

WORKING OF SHELL

- 227 Mother-of-pearl shell is termed *si*. Other bivalve shells of about the
 321 same size and shape as pearl shell are also termed *si* with an added adjective,
 as in *si pakeyou alonge*, to distinguish them from true pearl shell. Pearl
 shell is procured by grasping the shell with the hand and twisting it to break
 the testacles. Thick shells were used for composite pearl-shell hooks, thin
 shell for ornaments and for single-piece shell hooks.

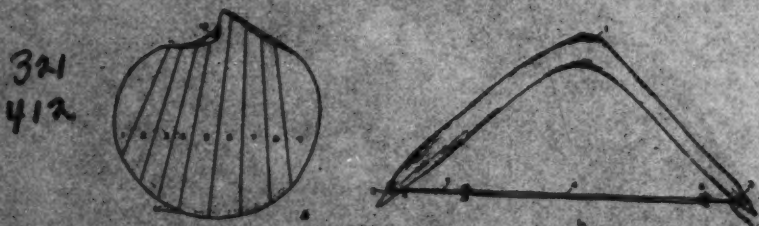


FIGURE 33.—Division of pearl shell; shell file. a, shell regionally divided into nine sections by cutting radially from hinge (10) to lip (11); preferred shanks for composite hooks cut from sections 4 to 7, other shanks from sections 1 to 3, 8 and 9; shanks for small composite hooks, single-piece hooks, and shell points for composite hooks cut from tip half of shell; named sections: 1, *tauu*; 2, *patana*; 3, *pa hi te uua*; 4, *ayoloto*; 5, 6, 7, *ayoloto*; 8, *tyumotu*; 9, *okawa*. b, shell file (*haka*) of shark skin (*Obay*): 1, frame, small branch of *vanameta* wood with limbs 11 and 9 inches long; 2, 3, ends of limbs pointed and notched; 4, curled shark skin, 9½ inches long, ¼ inch diameter; 5, 6, suspension cords of two-ply twisted ream, knotted to ends of shark skin, passed transversely around ends of limbs three times and knotted.

- 321 The whole pearl shell (*si si*) is regionally divided by the Pukapukans
 227 into nine named parts (fig. 33a). Radial sections cut through the hinge of
 the shell along these regional divisions are used for the shanks of basket
 trailing hooks; the lip ends of these radial sections are used for small com-
 posite hooks and for basket points.

321 The shell is cut along the section lines with the turtle-shell cutting implement (*ishu*) or with a similarly shaped implement made from *punga* coral (*ishu punga*). The edge of the blade is rubbed back and forward along the division line judged with the eye. A scratch is soon made on the nacreous surface of the shell. By further rubbing along this scratched line and by the addition at frequent intervals of water and sand, if the cutting implement is turtle bone, a narrow groove is formed which is finally deepened until the shell is cut through. A cut section of shell is shaped by rubbing and grinding with coral stone and water. Later the shape of a hook is filed out by the use of the shark skin rasp (*houona*).

To smooth the outer convex surface of pearl shell, the shell is rubbed on a large piece of *punga* coral placed on the ground in front of the worker. Water is used copiously on the rubbing surface. At intervals the shell is dipped into a bowl of clear water or the surface of the shell is rubbed with the fibrous end of a ripe pandanus leaf to test the sheen and the stage of polishing reached. When the worker is satisfied that he has procured the desired color, he gives the surface of the shell a final polish by rubbing it vigorously with a dry pandanus leaf.

Lashing or suspension holes are made in shell pieces by the use of the pump drill. Informants could suggest no ceremonial used in the manufacture of pearl-shell ornaments or composite hooks.

321 The shark-skin rasp is prepared as follows:

412 The skin of a freshly killed fish is submerged in fresh water for about eight days.
251 The skin is pegged out in the sun with wooden pegs until thoroughly dry. It is cut into pieces of suitable length and attached to a forked branch. A piece of skin that is flat longitudinally and transversely is attached to a branch to make the *houona olo* used for smoothing and polishing fishhook blanks. For the *houona ouaga* which is used to cut out the curves of composite hook points and the bend of a single-piece hook, a piece of shark skin is scraped on the fleshy surface to remove the stiff membranes. This allows the skin to curl transversely and produces a file, round in cross section (fig. 23b).

Shark skin is used for all purposes where a coarse abrasive is needed. The tail of the black ray (*vai hovu*), also used as a file in the manufacture of pearl shell, is preferred by some because it lasts longer than shark skin.

CANOE CONSTRUCTION

501 Two types of canoe are used in Pukapuka today. One, the simple, one-piece, dugout canoe, is used for fishing inside or outside the reef. The other, a plank canoe with washstrakes and bow and stern covers, is used for fishing and for making expeditions to the islets of Ko and Kotawa. Canoe making is a craft still very much alive in Pukapuka and most households possess two or more canoes, one a dugout, the others larger plank canoes.

177 The single-piece dugout (*poi pukumua*) does not seem to be an old style canoe. The only name for it is *poi*, a word probably derived from the English word boat; if this derivation is correct, it is evidence in support of informants' contention that the canoe style is new. Informants suggested that formerly there were not sufficient big trees on the islet to enable craftsmen to make single-piece canoes. The *poi* in use today is a simple hull balanced by outrigger and two cross beams.

Macgregor—Pukapuka

45

and the midrib is pushed through the hole before the needle is withdrawn. As shown by Buck (12) the same technique is used in the Cook Islands. 000

Most dwelling houses are built on a double platform of coral rubble, the lower platform several feet larger than the floor of the house. The upper platform, which forms the floor of the house, is made on the first platform and extends about 1 foot outside the walls of the house. Each platform is retained by logs or a curbing of coral slabs 8 or 10 inches high.

ADZES

For cutting out canoes and shaping timbers, the Pukapukans, like the dwellers on other Polynesian atolls, made adzes from the *Tridacna* shell—the only local material available. 321 412 ●

In the adz shown in figure 13, *a*, the poll is pointed and the side curves to the rounded cutting edges. The striated outer surface of the shell has been left on the convex front and only the bevel ground smooth. The concave inner surface forms the back which has the grinding surface to sharpen the cutting edge.

Another shell adz (fig. 13, *b*) is roughly rectangular in shape. The front is the outer stratified surface of the shell, except at the bevel which is ground on this surface; the back is the concave inner nacreous surface of the shell; the cutting edge is slightly convex. Part of the concavity and thickness of the shell have been removed by grinding down the outer rim until only a slight depression is left in the center. Along the slightly concave cutting edge and the two sides the surface is smooth and flat. The poll is broad and irregular and has a rough broken surface.

An adz found in Pukapuka (but obviously an importation) is made of basalt and is of the type common to western Polynesia (fig. 14). It is a long, thin, flat, quadrangular, tangless adz that tapers from the cutting edge to the poll. The front surface is slightly convex and is narrower than the back. The front, also the bevel of the back, are ground smooth. The remainder of the back and the two sides have rough chipped surfaces. The edge of the blade is straight; the bevel is convex longitudinally. Due to the rough, unground surface of the back, the chin is irregular. 177 412

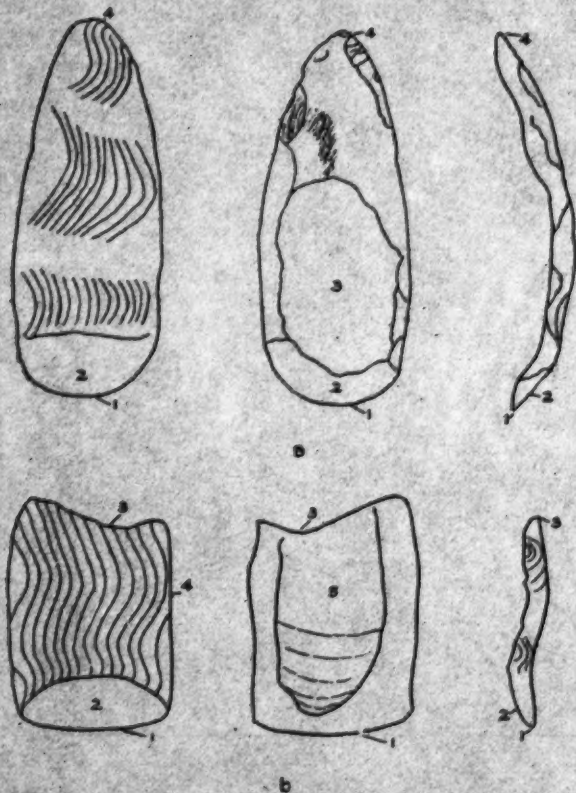
321
412

FIGURE 13.—Adzes of *Tridacna* shell. *a*, back, front, and side views (adze no. C 6527, Bernice P. Bishop Museum): 1, cutting edge; 2, bevel; 3, concavity of surface; 4, poll; greatest length, 4.75 inches. *b*, back, front and side views (adze in possession of R. D. Frisbie, Tahiti): 1, cutting edge; 2, ground bevel; 3, poll; 4, straight side; 5, central depression from natural concavity of shell; greatest length, 3 inches.

UTENSILS

415 A small satchel of lauhala collected at Pukapuka has the following
285 features.

Rectangular-sided and measuring 10 inches long, 8 inches high, and 1.5 inches wide, the satchel is made in simple check pattern. The bottom is flat and has square corners made by turning the strips as they are plaited. Each side is ornamented with strips of hala dyed red with native dyes. These strips are inserted over and included with the plaited elements. The pattern is X-shaped and is 7 inches long. On one side of the basket a solid square of the dyed hala is made between the forks formed by each arm of the X. The reverse side has two squares in each fork. The plaiting is commenced and

Macgregor—Pukapuka

47

finished at the edge of the basket and is seamless. The end elements of the finishing edge are turned over and worked into the plaiting over the opposite elements. The basket has two handles made of braided strips of hala which are sewed to the sides. 415
285

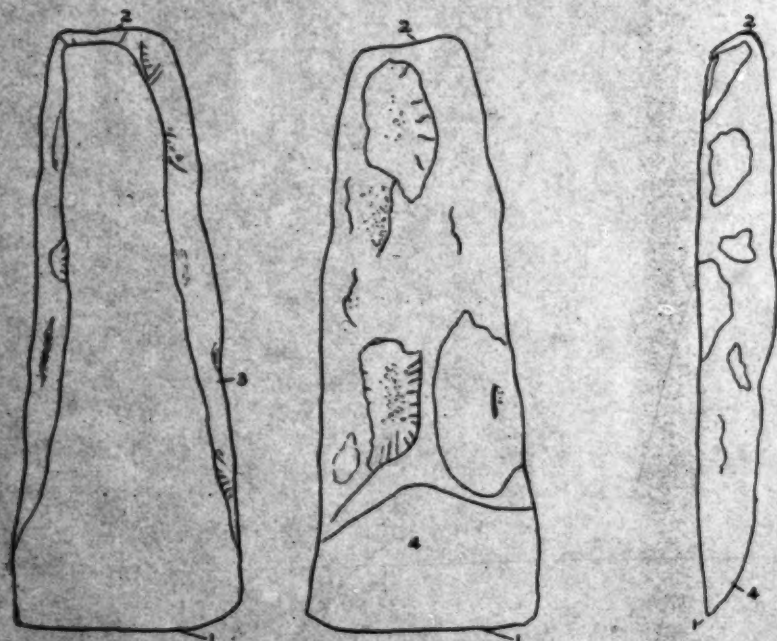


FIGURE 14.—Quadrilateral adz of basalt (no. B 8809, Bernice P. Bishop Museum), front, back, and side views: 1, cutting edge; 2, poll; 3, oblique side; 4, bevel; greatest length 7.5 inches. 412●
177

Food is mixed in wooden bowls (*kumete*) (fig. 15). They are hewn from single pieces of wood and shaped into elliptical bowls with flat bottoms. Short handles are cut at either end. 415

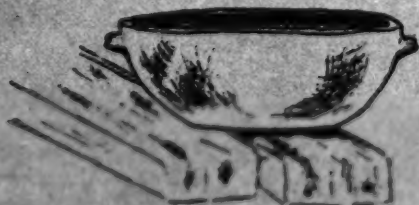


FIGURE 15.—Elliptical wooden food bowl with end lug handles and flat bottom.